CLAIMS

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is as follows:

1   1. A computer implemented best indicator adaptive method for demand
2   forecasting comprising the steps of:
3   implementing a plurality of forecasting subsystems which make use of
4   one or more different indicators;
5   generating forecasts based on one or more of said indicators;
6   refining the forecasts based on distribution demand; and
7   selecting a single composite forecast model for demand forecasting of
8   a product.

1   2. The computer implemented method recited in claim 1, wherein the different
2   indicators used by the plurality of forecasting subsystems include Load (L),
3   Ship (S) and Customer Acceptances history (CA_{hist}).

1   3. The computer implemented method recited in claim 2, wherein the step of
2   generating forecasts includes the steps of:
3   generating a forecast from Load (L);
4   generating a forecast from Ship (S);
5   generating a forecast from Load and Ship (LS); and
6   generating a forecast from Customer Acceptances history (CA_{hist}).

1   4. The computer implemented method recited in claim 3, wherein the step of
2   refining the forecasts based on distribution demand using Customer Requested
3   Date (CRAD) and includes the steps of:

4 generating a forecast from Load (L) and CRAD as $CA_{L,CRAD}$;

5 generating a forecast from Ship (S) and CRAD as $CA_{S,CRAD}$; and

6 generating a forecast from Load (L) and Ship (S) as $CA_{LS,CRAD}$.

1 5. The computer implemented method recited in claim 4, wherein the step of

2 selecting a single composite forecast model for demand forecasting of a

3 product includes the steps of:

4 for each forecast CA_L, CA_S, CA_{LS}, $CA_{L,CRAD}$, $CA_{S,CRAD}$, $CA_{LS,CRAD}$, and

5 CA_{hist}, determining a forecast error;

6 eliminating CA_{LS} and $CA_{LS,CRAD}$ if data is for a historical period shorter

7 than a predetermined period;

8 eliminating any other forecast due to expert knowledge;

9 for all remaining forecasts, selecting a forecast having a smallest error;

10 and

11 outputting a selected forecast as an optimum forecast.

1 6. A computer implemented best indicator adaptive method for demand

2 forecasting comprising the steps of:

3 implementing a plurality of forecasting subsystems making use of

4 single, double or triple sets of four sources of information, Load (L), Ship (S),

5 Customer Acceptances (CA), and Customer Request Date (CRAD);

6 forecasting Customer Acceptances (CA) based on Load (L) to generate

7 CA_L;

8 forecasting Customer Acceptances (CA) based on Ship (S) to generate

9 CA_S;

10 forecasting Customer Acceptances (CA) based on Load (L), Ship (S)

11 and Customer Acceptances history (CA_{hist}) to generate CA_{LS};

12 using a log mean to sigma ratio of CRAD distribution, adjusting the

13 forecasts CA_L, CA_S and CA_{LS} to arrive at more accurate forecasts $CA_{L,CRAD}$,

14 $CA_{S,CRAD}$, and $CA_{LS,CRAD}$; and

15   using adaptive optimization, selecting a final optimum forecast with a

16 smallest mean average percent historical error specific to geography and

17 product grouping while eliminating candidates based on dependency of

18 forecast error of individual candidates on length of historical data.

1 7. The computer implemented method recited in claim 6, wherein the step of

2 selecting a final optimum forecast includes the steps of:

3   for each forecast CA_L, CA_S, CA_{LS}, $CA_{L,CRAD}$, $CA_{S,CRAD}$, $CA_{LS,CRAD}$, and

4 CA_{hist}, determining a forecast error;

5   eliminating CA_{LS} and $CA_{LS,CRAD}$ if data is for a historical period shorter

6 than a predetermined period;

7   eliminating any other forecast due to expert knowledge;

8   for all remaining forecasts, selecting a forecast having a smallest error;

9 and

10   outputting a selected forecast as an optimum forecast.